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Our "tripetalous" species of *Iris*.

SERENO WATSON.

A century has not been time enough for American botanists to become acquainted with two of the most peculiar of their species of *Iris*, to say nothing of other eastern species, which, after an even longer time, still remain only imperfectly known, some of them almost unknown.

In 1788 Walter described with unusual fullness his *I. tripetala*, of which nothing more was learned until the time of Elliott (1816). As there had been a prior *I. tripetala* of Thunberg, Walter's name was changed by Pursh to *I. tridentata*, but it was restored by Elliott, the African species having been transferred to *Moræa* some years before the date of Pursh's *Flora*, where it still remains. There is no reason why Walter's name should not hold good, in which case Pursh's falls wholly to the ground. Elliott knew the species only as growing in the ponds of St. John's and St. Stephen's parishes, South Carolina, where Walter had found it. Its range has since been extended from the low districts of North Carolina to Florida. The only figure that has been given of it is as *I. tridentata*, Pursh, in Sweet's *British Flower Garden* (1828), t. 274, from plants which had been recently introduced from North America and cultivated at the Fulham Nurseries. The figure is a very good one and answers closely to Walter's description.

In the next year there appeared in Curtis's *Botanical Magazine* (t. 2886) a figure, and a description by Sir W. J. Hooker, of an *Iris* under the name of *I. tripetala*, Walt., said to have been communicated by David Falconer from his collection at Carlowrie, Edinburgh, but without indication of its original source. It is evidently a different plant from that figured by Sweet, and represents fairly, so far as the flower is concerned (but with broader leaves and much larger spathe), what we now know as a peculiar Canadian species. This Mr. Falconer, as appears from Loudon's *Gardener's Magazine* (1827), had in cultivation a very full collection of the known species of *Iris* and was endeavoring to make it complete. As there was frequent communication between England and Canada it is reasonable to suppose that this plant had been obtained by him directly from that province.

The discrepancy between the two figures, and between the plants in cultivation, was soon noticed, and in the same magazine for 1829 there is a note respecting an "*Iris Falconeriana*, Penny in Hort. Eps. ed. 2 ined.," named in compliment to Mr. Falconer of Carlowrie. "*I. tridentata*, Sweet, B. F. G. t. 274," is cited as a synonym, and it is said to be "very distinct from *I. tripetala*, Bot. Mag. t. 2886." The name must, therefore, have been intended for the Carolina form. George Penny was connected with the Epsom Nurseries; whether his Hortus Epsomensis, ed. 2, was ever published I do not know. He appears, however, to have not only given the above name to the species represented by Sweet's figure, but to have named the other also, for in Steudel's Nomenclator (1840) we find an "*I. Hookeri*, Penny," with "*I. tripetala*, Hook. in Bot. Mag. (non Walt.)" as a synonym, and "Am. Sept." as habitat. Granting the correctness of Steudel's reference to Penny as authority for the name, it is right that it should be adopted for the species and so credited, the citation being equivalent to a description, and sufficient for the identification of the plant to which the name was applied.

The first distinct statement of the occurrence of *I. Hookeri* in Canada is in Hooker's Flora Bor.-Americana (1839 or '40) as "*I. tridentata*, Ph.—*I. tripetala*, Walt. (not Thunb.) Bot. Mag. t. 2886. *Hab.* Canada. *Mrs. Sheppard*." No doubt is expressed respecting its identity with Walter's species, but Herbert's notes cited under this species and under "*I. Caurina*" are to the effect that in his opinion *I. tridentata* is only an imperfect state of *I. Virginica* (i. e., *I. versicolor*). Nothing more of moment was known or written about it until recently. In 1876 Mr. J. G. Baker of Kew wrote a revision of the genus for the Gardeners' Chronicle, in which he recognizes the two species as distinct. He retains Walter's species under his name, and transfers Pursh's name to the Canadian one, of which Pursh knew nothing whatever. He gives a description of this, not based apparently upon recent material, but chiefly upon the original figure and description. He compares it with *I. versicolor*, and suggests, with Herbert, that it may be a variety of that species. This resemblance to *I. versicolor* is much stronger in the figure, drawn from a probably luxuriant cultivated specimen, than in the wild ones which I have seen. In the Gray herbarium the species is represented by flowering specimens from Newfoundland (*Murray*), and by flowering and fruiting speci-

mens from the rocky and gravelly shores of the lower St. Lawrence at Tamisconato (*C. G. Pringle*). In these the leaves are nearly as narrow as in *I. prismatica* (2 to 4 lines broad), but the stems are low and rather stouter, and form a somewhat thicker rootstock. The pedicels (usually 2) are shorter than the scarious spathe, which is two inches long or less. The flowers, aside from the size and coloring, are distinguished by the short oblanceolate inner segments. The capsule is oblong and obtuse, rather thinly membranous and obtusely 3-lobed laterally, and distinctly marked by transverse veins. The seeds are scarcely more than half as large as those of *I. versicolor* and are more oblong. The rigid coriaceous capsules of *I. versicolor* are usually longer, rather acutely triangular, and with the obscure veins longitudinal, while in *I. prismatica* the capsules are strongly triquetrous and cross-veined.

*I. tripetala* is a taller and more leafy, slender and narrow-leaved species, with firmer herbaceous bracts enclosing the short pedicels. The capsules are coriaceous, broadly oblong, with a stout beak, and veinless. The seeds (not quite mature) are large and thick.

Attention having thus been called to this northern species, it is hoped that we may soon become better informed respecting its range through the lower provinces of Canada, and the variations to which it may be subject. There is also another point to which it may be well to advert. Both Herbert, in the Fl. Bor.-Am., and Mr. Baker, in his papers, are positive respecting the occurrence of the Californian *I. tenax* in Newfoundland and New Brunswick. It is not in itself probable, nor yet is it likely, that either *I. Hookeri* or *I. prismatica* could be mistaken for it, from both of which it is usually distinguished by the separation of the bracts which form the spathe. I would like to see a specimen of that species from the Atlantic coast. In conclusion I should express my obligations to Prof. Oliver and Mr. Hemsley of Kew for a clue to the personality of Steudel's "Penny," about whom I was completely at a loss.